

AMENDMENT TO THE CLAIMS

Claims 1-28 (Cancelled)

- 29.(New) A diaper product (1, 2, 6) comprising:
- an absorbent product (11, 21, 61) for receiving excrement from a wearer; and
- an IC tag (5a, 5b, 5e) having an IC chip and an antenna for radio communication connected to said IC chip, being attached to said absorbent product,
- wherein a serial number for discriminating said absorbent product (11, 21, 61) from other absorbent products is stored in said IC chip and can be read out through said antenna.
- 30.(New) The diaper product (2) according to claim 29, wherein
- said absorbent product (21) is a disposal diaper.
- 31.(New) A diaper product (2, 6) comprising:
- a disposal diaper (21);
- an auxiliary absorbent pad (61) attached inside said disposal diaper (21), for receiving excrement from a wearer;
- a first IC tag (5b) having a first IC chip and a first antenna for radio communication connected to said first IC chip, being attached to said disposal diaper; and
- a second IC tag (5e) having a second IC chip and a second antenna for radio communication connected to said second IC chip, being attached to said auxiliary absorbent pad,

wherein a serial number for discriminating said disposal diaper (21) from other disposal diapers is stored in said first IC chip and can be read out through said first antenna, and a serial number for discriminating said auxiliary absorbent pad (61) from other auxiliary absorbent pads is stored in said second IC chip and can be read out through said second antenna.

32.(New) A diaper product (3, 4) comprising:

a plurality of absorbent products (21);
a package (31, 41) for packaging said plurality of absorbent products (21); and
an IC tag (5c, 5d) having an IC chip and an antenna for radio communication connected to said IC chip, being attached to said package,
wherein a serial number for discriminating said package (31, 41) from other packages is stored in said IC chip and can be read out through said antenna.

33.(New) A supply information management system for managing information on supply of diaper products, comprising:

a writing device (711) provided in a station (701 to 705) where a predetermined process of at least one of manufacturing, inspecting, storing, shipping and selling on supply of a diaper product (1 to 4, 6) is performed, for writing to store process information on said predetermined process to an IC chip of an IC tag (5) attached to said diaper product (1 to 4, 6) through an antenna of said IC tag (5) for radio communication;

a reading device (711) for reading a process information together with a serial number

stored in an IC chip;

a product database storage part (724) for storing a product database (91) which is a set of data elements each associating a serial number with process information; and

a product database updating part (723) for specifying a data element in said product database (91), which includes a serial number read out by said reading device (711), and adding process information read out by said reading device (711) to said data element.

34.(New) The supply information management system (710) according to claim 33, further comprising:

a confirming part (720) for confirming whether process information read out by said reading device (711) between a first process included in said predetermined process and a second process after said first process includes first process information written to said IC chip by said writing device (711) in said first process; and

a transmitting part (721) for transmitting a serial number and first process information which are read out by said reading device (711) to said product database updating part (723) in a case where process information confirmed by said confirming part (720) includes said first process information.

35.(New) The supply information management system (710) according to claim 33, further comprising:

a portable reading device (717) for reading a serial number and process information

stored in an IC chip of an IC tag (5) attached to a diaper product (1 to 4, 6) in a noncontact manner and outputting said serial number and said process information.

36.(New) The supply information management system (710) according to claim 35, wherein said serial number and said process information which are read out by said reading device (711) and/or said portable reading device (717) are transmitted to said product database updating part (723) through internet (714).

37.(New) The supply information management system (710) according to claim 33, wherein said station includes at least one of a manufacturing station (701) for performing a process of manufacturing a diaper product (1 to 4, 6), an inspection station (702) for performing a process of inspecting a diaper product (1 to 4, 6), a storage station (703) for performing a process of storing or retrieving a diaper product (1 to 4, 6), a shipping station (704) for performing a process of shipping a diaper product (1 to 4, 6) and a sales station (705) for performing a process of selling a diaper product (1 to 4, 6).

38.(New) The supply information management system (710) according to claim 37, wherein said station includes said manufacturing station (701), and said writing device (711) provided in said manufacturing station (701) writes at least one of a product model type indicating a kind of said diaper product (1 to 4, 6) and its manufacturing date and time to said IC chip as said process information.

39.(New) The supply information management system (710) according to claim 37, wherein
said station includes said inspection station (702), and
said writing device (711) provided in said inspection station (702) writes at least one of
inspecting date and time of a said diaper product (1 to 4, 6), an inspector name and an inspecting
device to said IC chip as said process information.

40.(New) The supply information management system (710) according to claim 37, wherein
said station includes said storage station (703), and
said writing device (711) provided in said storage station (703) writes at least one of
storing date and time and retrieving date and time of a said diaper product (1 to 4, 6) to said IC
chip as said process information.

41.(New) The supply information management system (710) according to claim 37, wherein
said station includes said shipping station (704), and
said writing device (711) provided in said shipping station (704) writes at least one of
shipping date and time and a destination of said diaper product (1 to 4, 6) to said IC chip as said
process information.

42.(New) The supply information management system (710) according to claim 37, wherein
said station includes said sales station (705), and

said writing device (711) provided in said sales station (705) writes selling date and time of a said diaper product (1 to 4, 6) to said IC chip as said process information.

43.(New) A supply information management system (710a) for managing information on supply of diaper products, comprising:

a reading device (711a) for reading a serial number stored in an IC chip of an IC tag (5) attached to a diaper product (1 to 4, 6) through an antenna of said IC tag (5) for radio communication;

a product database storage part (724) for storing a product database (91) which is a set of data elements each associating a serial number of a diaper product (1 to 4, 6) with process information on a predetermined process of at least one of manufacturing, inspecting, storing, shipping and selling on supply of said diaper product (1 to 4, 6); and

a product database updating part (723) for specifying a data element in said product database (91), which includes a serial number read out by said reading device (711a), and adding process information on a process for a diaper product (1 to 4, 6) to said data element when said process is performed.

44.(New) A usage information management system (810) for managing information on usage of diaper products, comprising:

a reading device (811) for reading a product model type indicating a kind of a diaper product (2, 6) and a serial number which are stored in advance in an IC chip of an IC tag (5)

attached to said diaper product (2, 6) through an antenna of said IC tag (5) for radio communication;

a stock database storage part (831) for storing a stock database (92) which is a set of data elements each associating a serial number of a diaper product (2, 6) with a product model type and a state of usage of said diaper product (2, 6);

a stock database updating part (832) for specifying a data element in said stock database (92), which includes a serial number read out by said reading device (811), and updating a value of a data item in said data element which indicates a state of usage from a value of "unused" to that of "used" when said diaper product (2, 6) is put on a wearer; and

a stock number obtaining part (833) for specifying data elements in said stock database (92), each of which includes one product model type out of a plurality of product model types and a data item indicating said state of usage which has a value of "unused", and obtaining the number of said data elements as a stock number for a diaper product corresponding to said product model type.

45.(New) The usage information management system (810) according to claim 44, further comprising:

an order condition storage part (834) for storing a stock threshold value and the number of reordered products corresponding to each of said plurality of product model types; and

a reorder part (835) for transmitting a product model type and order information indicating the number of reordered products for said product model type to a selling agency

through a communication network (911) when a stock number for a diaper product (2, 6) corresponding to said product model type, which is obtained by said stock number obtaining part (833), falls short of a stock threshold value of said product model type.

46.(New) A usage information management system (810) for managing information on usage of diaper products, comprising:

a first reading device (811) for reading a product model type indicating a kind of diaper product (2, 6), which is stored in an IC chip of an IC tag (5) attached to a diaper product (2, 6) through an antenna of said IC tag (5) for radio communication;

a second reading device (811) for reading a wearer identification number for discriminating one wearer of a diaper product (2, 6) from other wearers;

a wearer database storage part (840) for storing a wearer database (93) which is a set of data elements each associating a wearer identification number with an applicable model type which is a product model type of a diaper product (2, 6) to be put on a wearer corresponding to said wearer identification number; and

a model type check part (852) for specifying a data element in said wearer database (93), which includes a wearer identification number read out by said second reading device (811), and checking an applicable model type in said data element with a product model type read out by said first reading device (811).

47.(New) The usage information management system (810) according to claim 46, further

comprising:

a wearer database updating part (851) for specifying a data element in said wearer database (93), which includes a wearer identification number read out by said second reading device (811), and updating a value of applicable model type in said data element to a product model type read out from a diaper product (2, 6) by said first reading device (811) when a change of applicable model type of a diaper product (2, 6) to be put on a wearer is needed.

48.(New) The usage information management system (810) according to claim 46, wherein

a data element of said wearer database (93) includes latest wearing date and time associated with a wearer identification number, and

when one diaper product (2, 6) is put on a wearer, said wearer database updating part (851) specifies a data element in said wearer database (93), which includes a wearer identification number read out by said second reading device (811), and updates latest wearing date and time in said data element.

49.(New) The usage information management system (810) according to claim 48, further

comprising

a change-scheduled date and time output part (853) for outputting next change-scheduled date and time for each wearer on the basis of a wearer identification number, latest wearing date and time and a change interval included in a data element corresponding to said each wearer.

50.(New) The usage information management system (810) according to claim 49, wherein
a data element of said wearer database (93) includes a plurality of latest wearing dates and
times and a plurality of change intervals corresponding to a plurality of product model types of
diaper products (2, 6) associated with a wearer identification number, and
said change-scheduled date and time output part (853) outputs a next change-scheduled
date and time on the basis of latest wearing date and time and a change interval of a data element
including a wearer identification number read out by said second reading device (811) and a
product model type of a diaper product (2, 6) read out by said first reading device (811) when
said diaper product (2, 6) is put on a wearer.

51.(New) The usage information management system (810) according to claim 46, further
comprising:

a wearing date and time database storage part (861) for storing a wearing date and time
database (94) which is a set of data elements each associating a product model type of a diaper
product (2, 6) and a wearer identification number with wearing date and time when said product
model type of said diaper product (2, 6) is put on a wearer corresponding to said wearer
identification number;

a wearing date and time database updating part (862) for adding a new data element to
said wearing date and time database (94) when one diaper product (2, 6) is put on a wearer, said
new data element including a product model type of said diaper product (2, 6), which is read out
by said first reading device (811), a wearer identification number read out by said second reading

device (811) and wearing date and time of said diaper product (2, 6); and

a usage frequency obtaining part (863) for specifying a plurality of data elements having the same product model type and wearer identification number in said wearing date and time database (94) and obtaining a usage frequency indicating the number of used diaper products in a predetermined period on the basis of wearing dates and times of said plurality of data elements.

52.(New) The usage information management system (810) according to claim 51, wherein

a plurality of data elements in said wearing date and time database (94) include product model types corresponding to disposal diapers (21) and other plurality of data elements include product model types corresponding to auxiliary absorbent pads (61) attached inside said disposal diapers (21).

53.(New) The usage information management system (810) according to claim 46, further comprising:

a price database storage part (871) for storing a price database (95) which is a set of data elements each associating a product model type of a diaper product (2, 6) with its price; and

a billing database storage part (872) for storing a billing database (96) which is a set of data elements each associating a wearer identification number with a billing amount for cost on usage of a diaper product (2, 6); and

a billing database updating part (873) for specifying a data element in said price database (95), which includes a product model type of a diaper product (2, 6), which is read out by said

first reading device (811), to acquire a price of said diaper product (2, 6) and specifying a data element in said billing database (96), which includes a wearer identification number read out by said second reading device (811), and updating a billing amount of a data element including said wearer identification number to a sum obtained by adding said price of said diaper product (2, 6) to said billing amount when said diaper product (2, 6) is put on a wearer.

54.(New) The usage information management system (810) according to claim 46, further comprising:

a price database storage part (871) for storing a price database (95) which is a set of data elements each associating a product model type of a diaper product (2, 6) with its price; and

a billing database storage part (872) for storing a billing database (96) which is a set of data elements each associating a wearer identification number with a self-pay ratio and a billing amount for cost on use of a diaper product (2, 6); and

a billing database updating part (873) for specifying a data element in said price database (95), which includes a product model type of a diaper product (2, 6), which is read out by said first reading device (811), to acquire a price of said diaper product (2, 6) and specifying a data element in said billing database (96), which includes a wearer identification number read out by said second reading device (811) and updating a billing amount of a data element including said wearer identification number to a sum obtained by adding a product of said price of said diaper product (2, 6) and said self-pay ratio to said billing amount when said diaper product (2, 6) is put on a wearer.

55.(New) A diaper product management system (910) for managing information on diaper products, comprising:

a supply information management system (710a) managed on a supplier side, where diaper products (1 to 4, 6) are manufactured and sold, for managing information on supply of diaper products (1 to 4, 6); and

a usage information management system (810) managed on a consumer side, where diaper products (2, 6) are consumed and connected to said supply information management system (710a) through a communication network (911), for managing information on usage of diaper products (2, 6),

wherein said supply information management system (710a) comprises
a supplier-side reading device (711a) for reading a serial number stored in an IC chip of an IC tag (5) attached to a diaper product (1 to 4, 6) through an antenna of said IC tag (5) for radio communication;

a product database storage part (724) for storing a product database (91) which is a set of data elements each associating a serial number of a diaper product (1 to 4, 6) with process information on a predetermined process of at least one of manufacturing, inspecting, storing, shipping and selling on supply of said diaper product (1 to 4, 6);

a product database updating part (723) for specifying a data element in said product database (91), which includes a serial number read out by said supplier-side reading device (711a), and adding process information on said process to said data element;

a product information obtaining part (726) for specifying a data element in said product database (91), which includes a serial number transmitted from said usage information management system (810) to acquire a value of a predetermined data item in said data element as product information; and

a product information transmitting part (727) for transmitting product information acquired by said product information obtaining part (726) to said usage information management system (810) through said communication network (911), and

said usage information management system (810) comprises

a consumer-side reading device (811) for reading a serial number stored in an IC chip of an IC tag (5) attached to a diaper product (2, 6);

a serial number transmitting part (821) for transmitting a serial number read out by said consumer-side reading device (811) to said supply information management system (710a) through said communication network (911); and

a product information output part (822) for receiving and outputting product information transmitted by said product information transmitting part (727) of said supply information management system (710a).

56.(New) The diaper product management system (910a) according to claim 55, wherein
said usage information management system (810a) further comprises
a product model type transmitting part (823) for transmitting a product model type indicating a kind of a diaper product (2, 6), which is stored in an IC chip of an IC tag (5) attached

to said diaper product (2, 6) and read out by said consumer-side reading device (811), to said supply information management system (710b) when said diaper product (2, 6) is put on a wearer, and

 said supply information management system (710b) further comprises
 a stock database storage part (728) for storing a stock database (97) which is a set of data elements associating a plurality of product model types of diaper products (2, 6) with respective stock numbers of diaper products (2, 6) on said consumer side corresponding to said plurality of product model types; and

 a stock database updating part (729) for specifying a data element in said stock database (97), which includes a product model type transmitted from said product model type transmitting part (823), and subtracting one from a stock number in said data element.